

## UNITED STATES PATENT AND TRADEMARK OFFICE

# CERTIFICATE OF CORRECTION

PATENT NO : 6,858,268

DATED : February 22, 2005

INVENTOR(S) : Juliane Suermann

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 82, line 32, reads " $\mu\text{m}^{31}$ " should read  $-\mu\text{m}^{-1}-$

Column 82, line 35, reads " $\mu\text{m}^{31}$ " should read  $-\mu\text{m}^{-1}-$

Columns 83, lines 28-67, through Column 84, lines 1-44, reads " formula XI:

$\text{X}^{11}$  and  $\text{X}^{22}$  are each, independently of one another,  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CH}_2\text{CF}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CF}=\text{CH}-$ ,  $-\text{CH}=\text{CF}-$ ,  $-\text{CF}=\text{CF}-$  or a single bond,

$\text{Z}^{11}$  is in each case, independently of one another,  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{CO}-$ ,  $-\text{COO}-$ ,  $-\text{OCO}-$ ,  $-\text{O-COO}-$ ,  $-\text{CO-N}(\text{R}^{00})-$ ,  $-\text{N}(\text{R}^{00})-\text{CO}-$ ,  $-\text{OCH}_2-$ ,  $-\text{CH}_2\text{O}-$ ,  $-\text{SCH}_2-$ ,  $-\text{CH}_2\text{S}-$ ,  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CH}_2\text{CH}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CH}_2\text{CF}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{CF}=\text{CH}-$ ,  $-\text{CH}=\text{CF}-$ ,  $-\text{CF}=\text{CF}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{CH}=\text{CH}-\text{COO}-$ ,  $-\text{OCO}-\text{CH}=\text{CH}-$  or a single bond,

$\text{R}^{00}$  is H or alkyl having from 1 to 4 carbon atoms,

$\text{A}^{11}$  and  $\text{A}^{22}$  are each, independently of one another: 1,4-phenylene, in which, in addition, one or more CH groups are optionally replaced by N; 1,4-cyclohexylene, in which one or two non-adjacent  $\text{CH}_2$  groups are optionally replaced by O and/or S; 1,3-dioxolane-4,5-diyl; cyclohexenylene; bicyclo[2.2.2]-octylene; piperidine-1,4-diyl; naphthalene-2,6-diyl; decahydronaphthalene-2,6-diyl; or 1,2,3,4-tetrahydronaphthalene-2,6-diyl, where all of these groups are unsubstituted or monosubstituted or polysubstituted by halogen, CN or  $\text{NO}_2$  or alkyl, alkoxy, alkylcarbonyl or alkoxy carbonyl having from 1 to 7 carbon atoms, in which one or more H atoms are optionally replaced by F or Cl, and

$m$  is 1, 2, 3, 4 or 5,

provided that at least one of the radicals  $\text{X}^{11}$ ,  $\text{X}^{22}$  and  $\text{Z}^{11}$  is  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CF}=\text{CH}-$  or  $-\text{CF}=\text{CF}-$  and at least one of the radicals  $\text{R}^{11}$  and  $\text{R}^{22}$  is a chiral group,

compounds of the formula XVI  
 $\text{R}^{11}-\text{X}^{33}-(\text{A}^{11}-\text{Z}^{11})_m-\text{G}-(\text{Z}^{22}-\text{A}^{22})_n-\text{X}^{44}-\text{R}^{22}$ , should read --formula XI.--

Column 85, line 19, in formula XII, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 85, line 62, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 86, line 17, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 87, line 29, reads " $(\text{Z}^2-\text{A}^2)_m\text{R}$ ," should read  $-(\text{Z}^2-\text{A}^2)_m-\text{R}, -$

Column 88, line 29, reads "F, Cl, Br, or" should read  $-\text{F}, \text{Cl}, \text{Br}, \text{I or}-$

Column 92, line 55, in formula XII, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 93, line 27, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 93, line 45, reads " $\text{W}^{12}$ ," should read  $-\text{W}^{22}-$

Column 96, line 22, reads "group," should read -- group,

$X^{11}$  and  $X^{22}$  are each, independently of one another,  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CH}_2\text{CF}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CF}=\text{CH}-$ ,  $-\text{CH}=\text{CF}-$ ,  $-\text{CF}=\text{CF}-$  or a single bond,

$Z^{11}$  is in each case, independently of one another,  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{CO}-$ ,  $-\text{COO}-$ ,  $-\text{OCO}-$ ,  $-\text{O-COO}-$ ,  $-\text{CO-N}(\text{R}^{00})-$ ,  $-\text{N}(\text{R}^{00})-\text{CO}-$ ,  $-\text{OCH}_2-$ ,  $-\text{CH}_2\text{O}-$ ,  $-\text{SCH}_2-$ ,  $-\text{CH}_2\text{S}-$ ,  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CH}_2\text{CH}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CH}_2\text{CF}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{CF}=\text{CH}-$ ,  $-\text{CH}=\text{CF}-$ ,  $-\text{CF}=\text{CF}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{CH}=\text{CH-COO}-$ ,  $-\text{OCO-CH}=\text{CH}-$  or a single bond,

$\text{R}^{00}$  is H or alkyl having from 1 to 4 carbon atoms,

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m is 1, 2, 3, 4 or 5,

provided that at least one of the radicals  $X^{11}$ ,  $X^{22}$  and  $Z^{11}$  is  $-\text{CF}_2\text{O}-$ ,  $-\text{OCF}_2-$ ,  $-\text{CF}_2\text{S}-$ ,  $-\text{SCF}_2-$ ,  $-\text{CF}_2\text{CH}_2-$ ,  $-\text{CF}_2\text{CF}_2-$ ,  $-\text{CF}=\text{CH}-$  or  $-\text{CF}=\text{CF}-$  and at least one of the radicals  $\text{R}^{11}$  and  $\text{R}^{22}$  is a chiral group,

- compounds of the formula XVI

$\text{R}^{11}-\text{X}^{33}-(\text{A}^{11}-\text{Z}^{11})_m-\text{G}-(\text{Z}^{22}-\text{A}^{22})_n-\text{X}^{44}-\text{R}^{22}$  --

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PATENT NO. 6,858,268



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

U.S. Patent No.: 6,858,268

Serial No. : 10/633,490

Filed : August 4, 2003

Issued : February 22, 2005

For : Liquid-crystalline Medium And Liquid-crystal Display Having High Twist

**PETITION FOR CERTIFICATE OF CORRECTION  
PURSUANT TO 37 C.F.R. § 1.322 OR § 1.323**

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

Applicants hereby request that the above-identified U.S. patent be corrected in accordance with the attached Certificate of Correction.

Note that the correction deleting material at column 83, line 28 to column 24, line 44, and the correction at column 96, line 22, adding material are related. The deleted material is the same material added later. It appeared at the wrong place in the patent.

I. C.F.R. § 1.322

- ☒ The mistake(s) was/were incurred through the fault of the Patent and Trademark Office and is/are clearly disclosed in the records of the Office. Therefore, no fee is due.

II. C.F.R. § 1.323

- ☐ At least some of the mistakes was/were made by the applicant. Therefore, a check in the amount of \$100.00 in payment of the fee set forth in 37 C.F.R. § 1.20(a) is enclosed herewith.

Enclosed herewith is a Form PTO-1050 (in duplicate) listing errors that have been found in the above-identified patent. The error(s) are of a clerical or typographical nature or of minor character and were made in good faith. The requested correction(s) do not constitute new matter or require reexamination.

III. Accordingly, patentees and their assignee respectfully request that the Patent and Trademark Office issue a Certificate of Correction pursuant to 37 C.F.R. § 1.322 or § 1.323, respectively.

Respectfully submitted,

\_\_\_\_\_/John A Sopp/\_\_\_\_\_  
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JAS/ras